

REMARKS

Claim Rejections – 35 U.S.C. §102 and §103

Claims 63-75, 82, 101, 102, 105 and 106 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,728,159 to Stroever et al. Additionally, claims 76-81, 83-100, 103 and 104 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stroever in view of U.S. Patent No. 6,033,438 to Bianchi et al.

Cancelled Claims

As an initial matter, claims 66, 68, 90, 93, 105 and 106 have been cancelled without prejudice for possible submission in a continuing application.

Independent Claim 63 and Dependent Claims 64, 65, 69-74, 76-81, 84-89, 91, 92 and 94

Independent claim 63 has been rejected as being anticipated by Stroever. The Applicant has amended independent claim 63 to recite, among other elements and features, “an elongate bone portion defining a longitudinal axis and having a generally rectangular cross-section transverse to the longitudinal axis”, with the bone portion having a first sidewall including “a concave outer surface extending axially between said first and second end portions”, and a second sidewall opposite the first side wall and extending between the first and second bone engaging surfaces and including “a convex outer surface extending axially between said first and second end portions”, and “wherein said concave outer surface of said first sidewall extends generally parallel with and is positioned opposite said convex outer surface of said second sidewall to provide said elongate bone portion with a generally crescent shaped cross-section in a plane including the longitudinal axis”. Support for the amendments to independent claim 63 is found, for example, in previously presented claims 66, 68 and 90, paragraph [0130] of the published application, and in Figures 11a and 22.

As shown in Figure 1 of Stroever, even assuming arguendo that implant 10 could be construed as an elongate bone portion having a first side wall 14 including a concave outer surface (i.e., the lateral outer surface designated by “L”), the implant 10 does not have an opposite second sidewall including “a convex outer surface extending axially between said first and second end portions”. Notably, the sidewall of the implant 10 opposite the concave outer

surface L likewise defines a concave outer surface, which is directly contrary to the recitation in independent claim 63 that the opposite second sidewall includes “a convex outer surface”.

Moreover, the concave outer surface L of the side wall 14 is not “generally parallel with and . . . positioned opposite to” a convex outer surface, as also recited in independent claim 63.

Furthermore, the implant 10 does not include opposite concave and convex outer surfaces that extend generally parallel with one another “to provide said elongated bone portion with a generally crescent shaped cross-section in a plane including the longitudinal axis”, as further recited in independent claim 63.

The Applicant submits that none of the implant embodiments of Stroever include each of the elements and features recited in independent claim 63, as amended. Additionally, neither Bianchi nor any of the other references of record disclose each of the elements and features recited in amended independent claim 63, whether considered along or in combination with Stroever. Accordingly, the Applicant respectfully requests withdrawal of the rejection of independent claim 63 and allowance of the same.

Claims 72, 78, 79, 81, 84, 91 and 94 have been amended to depend either directly or indirectly from independent claims 63, and claims 70 and 92 has been amended to correct informalities and/or to improve their form. As a result, each of the claims 64, 65, 69-74, 76-81, 84-89, 91, 92 and 94 depends either directly or indirectly from independent claim 63, and are submitted to be patentable for at least the reasons set forth above in support of the patentability of independent base claim 63.

Rewritten Independent Claim 67

Dependent claim 67 has been rejected as being anticipated by Stroever. The Applicant has rewritten claim 67 in independent form and has amended independent claim 67 to recite, among other elements and features, “an elongate bone portion defining a longitudinal axis and having a generally rectangular cross-section transverse to the longitudinal axis”, with the bone portion having a first sidewall including “a concave outer surface extending axially between said first and second end portions”, and a second sidewall arranged opposite the first sidewall and having “a substantially planar portion defining a flat outer surface extending between said first and second bone engaging surfaces and axially along a length of said elongate bone portion between said first and second end portions”, and

“wherein said concave outer surface of said first sidewall is positioned opposite said flat outer surface of said second sidewall”. Support for rewritten independent claim 67 is found, for example, in paragraphs [0109], [0012] and [0013] of the published application, and in Figures 1-6.

As shown in Figure 1 of Stroever, even assuming arguendo that implant 10 could be construed as an elongate bone portion having a first side wall 14 including a concave outer surface (i.e., the lateral outer surface designated by “L”), the implant 10 does not have an opposite second sidewall having “a substantially planar portion defining a flat outer surface extending between said first and second bone engaging surfaces and axially along a length of said elongate bone portion between said first and second end portions”, and with “said concave outer surface of said first sidewall is positioned opposite said flat outer surface of said second sidewall”. Notably, the sidewall of the implant 10 opposite the concave outer surface L defines another concave outer surface, and not a flat outer surface, as recited in independent claim 67. The Applicant also notes that the outer implant surfaces illustrated in Figure 1 which are designated as references “L” and “M” are symmetrical to one another. Due to this symmetry, one of these surfaces can not be construed as a concave outer surface and the other a flat outer surface. Indeed, the only outer surface of the implant 10 that is arguably flat is the anterior outer surface A. However, the anterior outer surface A does not extend “axially along a length” of the implant 10, as recited in independent claim 67, but instead extends laterally across a width of the implant between the lateral and medial outer surfaces L and M. Moreover, the posterior outer surface P opposite the anterior outer surface A is not concave, as required by independent claim 67. To the contrary, the posterior outer surface P appears to comprise a convex surface.

The Applicant submits that none of the implant embodiments of Stroever include each of the elements and features recited in rewritten independent claim 67. Additionally, neither Bianchi nor any of the other references of record disclose each of the elements and features recited in amended independent claim 67, whether considered along or in combination with Stroever. Accordingly, the Applicant respectfully requests withdrawal of the rejection of rewritten independent claim 67 and allowance of the same.

Rewritten Independent Claim 75

Dependent claim 75 has been rejected as being anticipated by Stroever. The Applicant has rewritten claim 75 in independent form and has amended rewritten independent claim 75 to recite, among other elements and features, “an elongate bone portion defining a longitudinal axis and having a generally rectangular cross-section transverse to the longitudinal axis”, with the bone portion having “a first sidewall extending along a length of the elongated bone portion and comprising a first substantially planar outer surface adjacent said first end portion and a second substantially planar outer surface adjacent said second end portion, said first and second substantially planar outer surfaces extending between said first and second bone engaging surfaces and axially along the longitudinal axis, the first sidewall further comprising a concave outer surface extending axially between said first and second substantially planar surfaces and between said first and second bone engaging surfaces”. Support for rewritten independent claim 75 is found, for example, in paragraphs [0109], [0012], [0013], [0130] and [0131] of the published application, and in Figures 1-6, 11a and 22.

With regard to Stroever, none of the disclosed implant embodiments includes a sidewall extending along a length of the elongated bone portion and comprising first and second “substantially planar outer surfaces” positioned adjacent first and second end portions and “extending between said first and second bone engaging surfaces and axially along the longitudinal axis”, and the side wall further including “a concave outer surface extending axially between said first and second substantially planar surfaces and between said first and second bone engaging surfaces”. Notably, the only implant embodiment of Stroever which includes a sidewall defining any planar outer surfaces is the embodiment shown in Figures 1 and 5. Although the anterior outer surface A arguably constitutes a planar outer surface, the anterior outer surface does not extend axially along a longitudinal axis (i.e. the length) of the implant 10. Furthermore, none of the implant embodiments of Stroever includes first and second substantially planar outer surfaces positioned at opposite end portions of the implant and “a concave outer surface extending axially between said first and second substantially planar surfaces”, as recited in rewritten independent claim 75.

The Applicant submits that none of the implant embodiments of Stroever include each of the elements and features recited in rewritten independent claim 75. Additionally, neither Bianchi nor any of the other references of record disclose each of the elements and features recited in amended independent claim 75, whether considered along or in combination with Stroever. Accordingly, the Applicant respectfully requests withdrawal of the rejection of rewritten independent claim 75 and allowance of the same.

Rewritten Independent Claim 82 and Dependent Claim 83

Independent claim 82 has been rejected as being anticipated by Stroever. The Applicant has amended independent claim 82 to recite, among other elements and features, an elongate bone portion defining a length extending along a longitudinal axis and including “a first sidewall comprising a concave outer surface extending along the length”, “a second sidewall opposite said first side wall and comprising a convex outer surface extending along the length”, and “wherein the convex outer surface of said second sidewall is positioned opposite and is arranged generally parallel to the concave outer surface of said first sidewall to provide said elongate bone portion with a generally crescent shaped cross-section in a plane including the longitudinal axis”. Support for the amendments to independent claim 82 is found, for example, in previously presented claim 90, paragraph [0130] of the published application, and in Figures 11a and 22.

As shown in Figure 1 of Stroever, even assuming arguendo that implant 10 could be construed as an elongate bone portion having a first side wall 14 including a concave outer surface (i.e., the lateral outer surface designated by “L”), the implant 10 does not have “a second sidewall opposite said first side wall and comprising a convex outer surface extending along the length”. Notably, the sidewall of the implant 10 opposite the concave outer surface L likewise defines a concave outer surface, which is directly contrary to the recitation in independent claim 82 that the opposite second sidewall includes “a convex outer surface extending along the length” of the implant. Moreover, the implant 10 does not include a convex outer surface “arranged generally parallel to the concave outer surface of said first sidewall to provide said elongate bone portion with a generally crescent shaped cross-section in a plane including the longitudinal axis”, as is also recited in independent claim 82.

The Applicant submits that none of the implant embodiments of Stroever include each of the elements and features recited in independent claim 82, as amended. Additionally, neither Bianchi nor any of the other references of record disclose each of the elements and features recited in amended independent claim 82, whether considered along or in combination with Stroever. Accordingly, the Applicant respectfully requests withdrawal of the rejection of independent claim 82 and allowance of the same. Independent claim 83 has been amended to depend from independent claim 82, and is submitted to be patentable for at least the reasons set forth above in support of the patentability of independent base claim 82.

Independent Claim 95 and Dependent Claims 96 and 98-104

Independent claim 95 has been rejected as being anticipated by Stroever in view of Bianchi. The Applicant has amended independent claim 95 to recite, among other elements and features, first and second end portions arranged along a longitudinal axis, first and second bone engaging surfaces with “each of said bone engaging surfaces being planar”, a first side wall “having a cavity . . . defining a concave outer surface extending axially between the first end portion and the second end portion and from the first bone engaging surface to the second bone engaging surface”, a second side wall opposite the first side wall and “defining a convex outer surface disposed between the first end portion and the second end portion”, and “wherein said concave outer surface of said first side wall extends generally parallel with and is positioned opposite said convex outer surface of said second side wall to provide the implant with a generally crescent shaped cross-section in a plane including the longitudinal axis”. Support for the amendments to independent claim 95 is found, for example, in previously presented claims 66, 68 and 90, paragraph [0130] of the published application, and in Figures 11a and 22.

As shown in Figure 1 of Stroever, even assuming arguendo that implant 10 could be construed as an elongate bone portion having a first side wall 14 including a concave outer surface (i.e., the lateral outer surface designated by “L”), the implant 10 does not have an opposite second side wall “defining a convex outer surface disposed between the first end portion and the second end portion”. Notably, the sidewall of the implant 10 opposite the concave outer surface L likewise defines a concave outer surface, which is directly contrary

to the recitation in independent claim 95 that the opposite second sidewall includes “a convex outer surface”. Moreover, the concave outer surface L of the side wall 14 does not extend “generally parallel with and positioned opposite said convex outer surface of said second side wall”, as also recited in independent claim 95. Moreover, the implant 10 does not include opposite concave and convex outer surfaces that extend generally parallel with one another “to provide the implant with a generally crescent shaped cross-section in a plane including the longitudinal axis”, as further recited in independent claim 95.

The Applicant submits that none of the implant embodiments of Stroever include each of the elements and features recited in independent claim 95, as amended. Additionally, neither Bianchi nor any of the other references of record disclose each of the elements and features recited in amended independent claim 95, whether considered along or in combination with Stroever. Accordingly, the Applicant respectfully requests withdrawal of the rejection of independent claim 95 and allowance of the same.

Claims 100, 101, 103 and 104 have been amended to depend either directly or indirectly from independent claims 95, and claim 100 has been amended to improve its form. As a result, each of the claims 96 and 98-104 depends either directly or indirectly from independent claim 95, and each of these claims is submitted to be patentable for at least the reasons set forth above in support of the patentability of independent base claim 95.

Independent Claim 97

Claim 97 has been rejected as being anticipated by Stroever in view of Bianchi. The Applicant has rewritten claim 97 in independent form and has amended independent claim 97 to recite, among other elements and features, first and second end portions arranged along a longitudinal axis, first and second bone engaging surfaces with “each of said bone engaging surfaces being planar”, a first side wall “having a cavity . . . defining a concave outer surface extending axially between the first end portion and the second end portion and from the first bone engaging surface to the second bone engaging surface”, a second side wall opposite the first side wall and “comprising a substantially planar portion defining a flat outer surface extending between said first and second bone engaging surfaces and axially between the first end portion and the second end portion along the longitudinal axis”, and “wherein said

concave outer surface defined by said first side wall is positioned opposite said flat outer surface of said second side wall". Support for rewritten independent claim 97 is found, for example, in paragraphs [0109], [0012] and [0013] of the published application, and in Figures 1-6.

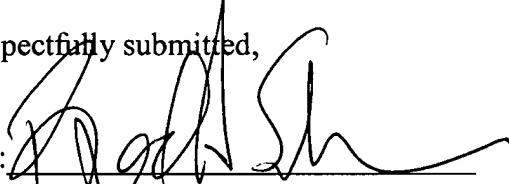
As shown in Figure 1 of Stroever, even assuming arguendo that implant 10 could be construed as having a first side wall 14 including a concave outer surface (i.e., the lateral outer surface designated by "L"), the implant 10 does not include an opposite second sidewall "comprising a substantially planar portion defining a flat outer surface extending between said first and second bone engaging surfaces and axially between the first end portion and the second end portion along the longitudinal axis", and with "said concave outer surface defined by said first side wall is positioned opposite said flat outer surface of said second side wall". Notably, the sidewall of the implant 10 opposite the concave outer surface L defines another concave outer surface, and not a substantially planar portion defining a flat outer surface. The Applicant also notes that the outer implant surfaces illustrated in Figure 1 which are designated as "L" and "M" are symmetrical to one another. Due to this symmetry, one of these surfaces can not be construed as a concave outer surface and the other flat outer surface. Indeed, the only outer surface of the implant 10 that is arguably flat is the anterior surface A. However, the anterior outer surface A does not extend axially between first and second end portions of the implant and "along the longitudinal axis" of the implant 10, as recited in independent claim 97. Instead, the flat anterior outer surface A extends laterally across a width of the implant between the lateral and medial outer surfaces L and M. Moreover, the posterior outer surface P opposite the anterior outer surface A is not concave, as required by independent claim 97. To the contrary, the posterior outer surface P appears to comprise a convex surface. Furthermore, none of the implant embodiments disclosed in Stroever satisfy each of the elements and features recited in independent claim 97.

The Applicant submits that none of the implant embodiments of Stroever include each of the elements and features recited in rewritten independent claim 97. Additionally, neither Bianchi nor any of the other references of record disclose each of the elements and features recited in amended independent claim 97, whether considered along or in combination with

Stroever. Accordingly, the Applicant respectfully requests withdrawal of the rejection of rewritten independent claim 97 and allowance of the same.

CONCLUSION

The Applicant respectfully requests entry of this Amendment and consideration and allowance of the subject application including pending claims 63-65, 67, 69-89, 91, 92 and 94-104. Timely action towards a Notice of Allowability is hereby solicited. The Examiner is encouraged to contact the undersigned by telephone to resolve any outstanding matters concerning the subject application.

Respectfully submitted,
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